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September 26, 2018

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

**Re: Transforming the 2.5 GHz Band, WT Docket No. 18-120  
Notice of Oral Ex Parte Communication**

Dear Ms. Dortch:

On September 24, 2018, Nicole Tupman and the undersigned of Midcontinent Communications (Midco) met with Umair Javed from Commissioner Rosenworcel's office. Midco discussed the above-referenced proceeding, and Midco's experience with fixed wireless and desire to use the 2.5 GHz band to serve rural America and bridge the Digital Divide.

Midco shared its views on the 2.5 GHz band as summarized in the enclosed presentation and maps, including the following: incumbent licenses should be rationalized from the current 35-mile radius government service areas (GSA) to county-sized licenses if the GSA covers at least 75% of the county; rationalization should be automatic and occur before a commercial auction; the Commission should create auction procedures to encourage rural broadband buildout; and the Commission should balance commercial use of the 2.5 GHz band with the original, educational purposes of the band by requiring participation in E-rate or a similar program. Midco also discussed its support for a voluntary incentive auction for incumbents, and using the proceeds of such auction to help bridge the homework gap.

Midco also discussed and endorsed the channel plan and associated spectrum limitation of no more than 63 MHz advanced by the Wireless Internet Service Provider Association (WISPA), specifically:

- A1-A3 and B1-B3 – 33 MHz of contiguous spectrum in lower band segment
- C1-C3 and D1-D3 – 33 MHz of contiguous spectrum in lower band segment
- A4, B4, C4, D4, and G4 – 30 MHz of contiguous spectrum in middle band segment
- G1-G3 – 16.5 MHz of contiguous spectrum in upper band segment

*See WISPA Comments at p. 20; WISPA Reply Comments at p. 18.*



In accordance with Section 1.1206(b) of the Commission's rules, I have filed a copy of this notice electronically in the above-referenced docket. Please address any questions regarding the foregoing to me.

Sincerely,

/s/

Scott B. Anderson  
Chief Legal Officer

Enclosures

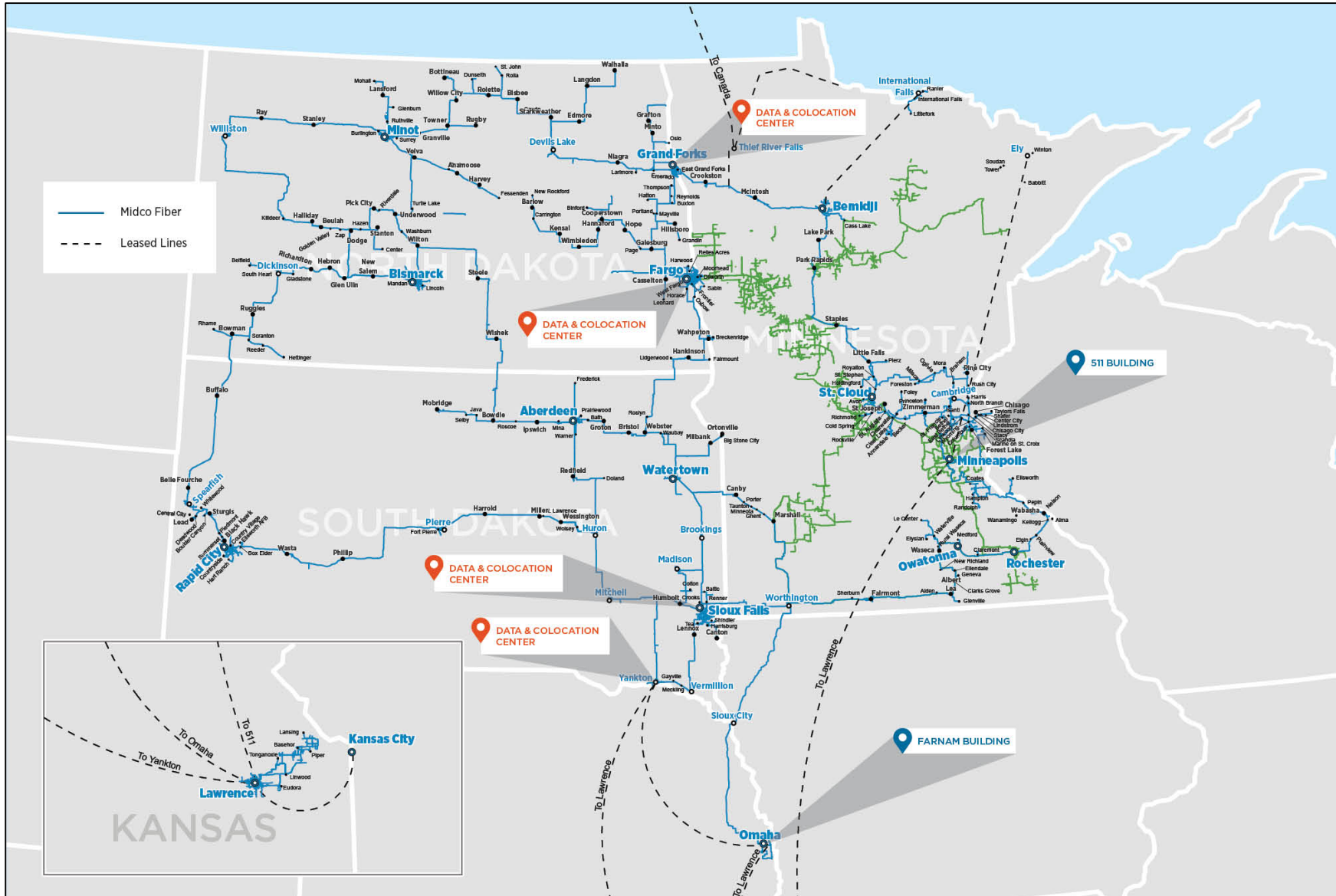
cc: Umair Javed

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# Using the 2.5 GHz Band to Serve Rural America



# Midwestern Service



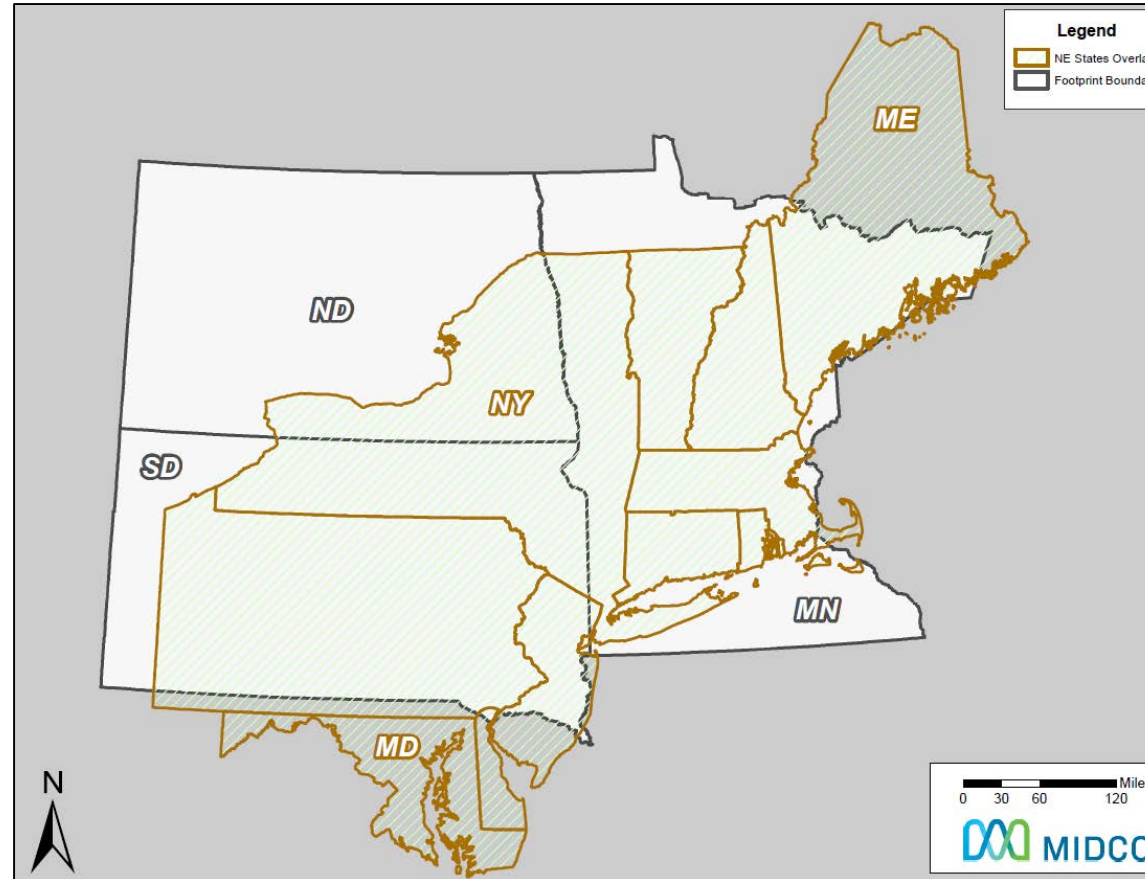
# Multiple Services Operator

- 10,000 fiber miles; 4 owned data centers; 2 leased data centers
- 365,000+ wired broadband customers; 80% with Gigabit access
- 4,200+ fixed wireless broadband customers; 140 “towers”
- 70,300+ residential phone customers
- 17,600+ Hosted VoIP customers
- 290,700+ video customers
- 1,500+ Midco SmartHome customers
- Tri-state sports network, MidcoSN



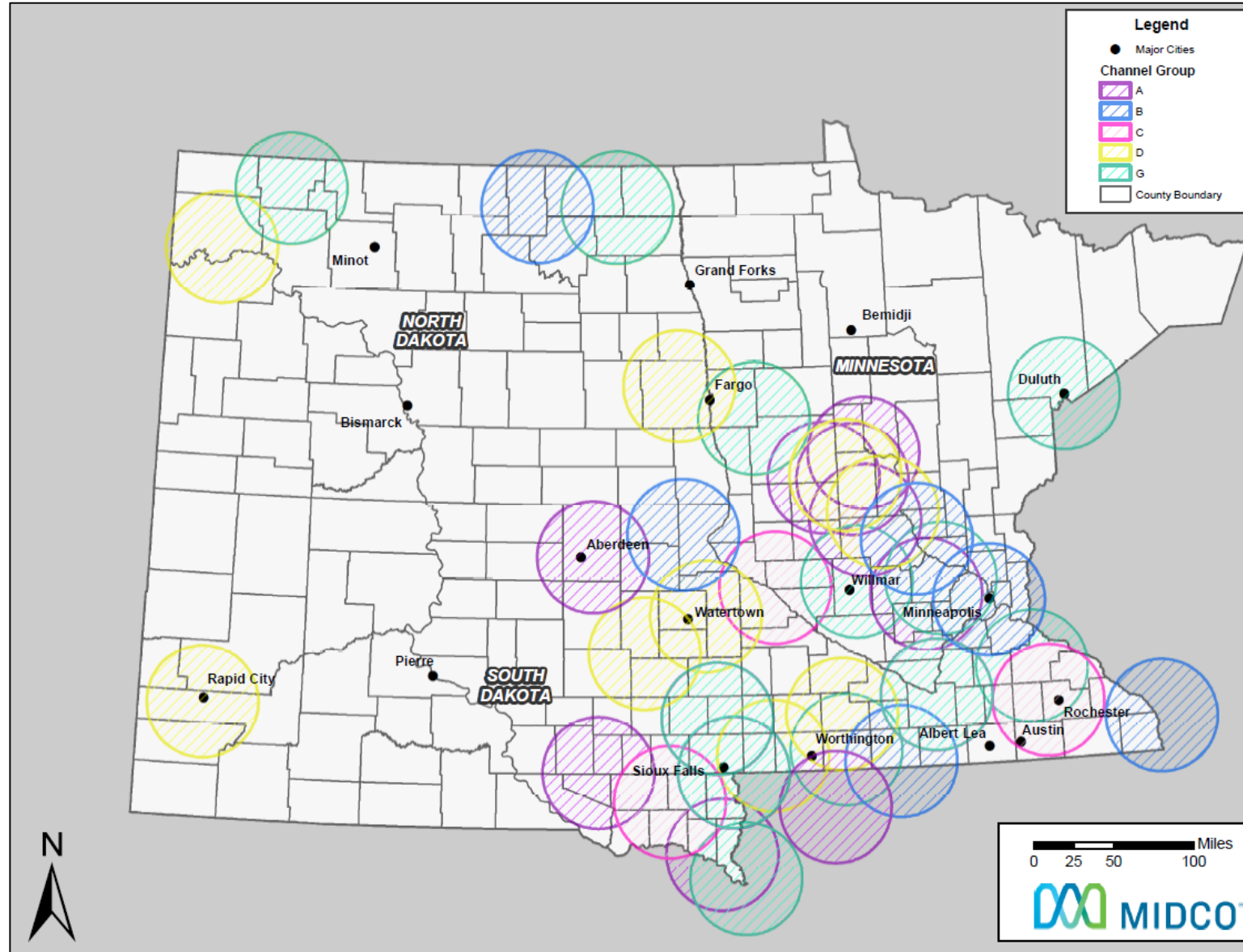
# Providing Rural Connectivity

- Northeast population: approx. 61.2 million
- Midco footprint population: approx. 7.2 million





# EBS Licenses in Footprint

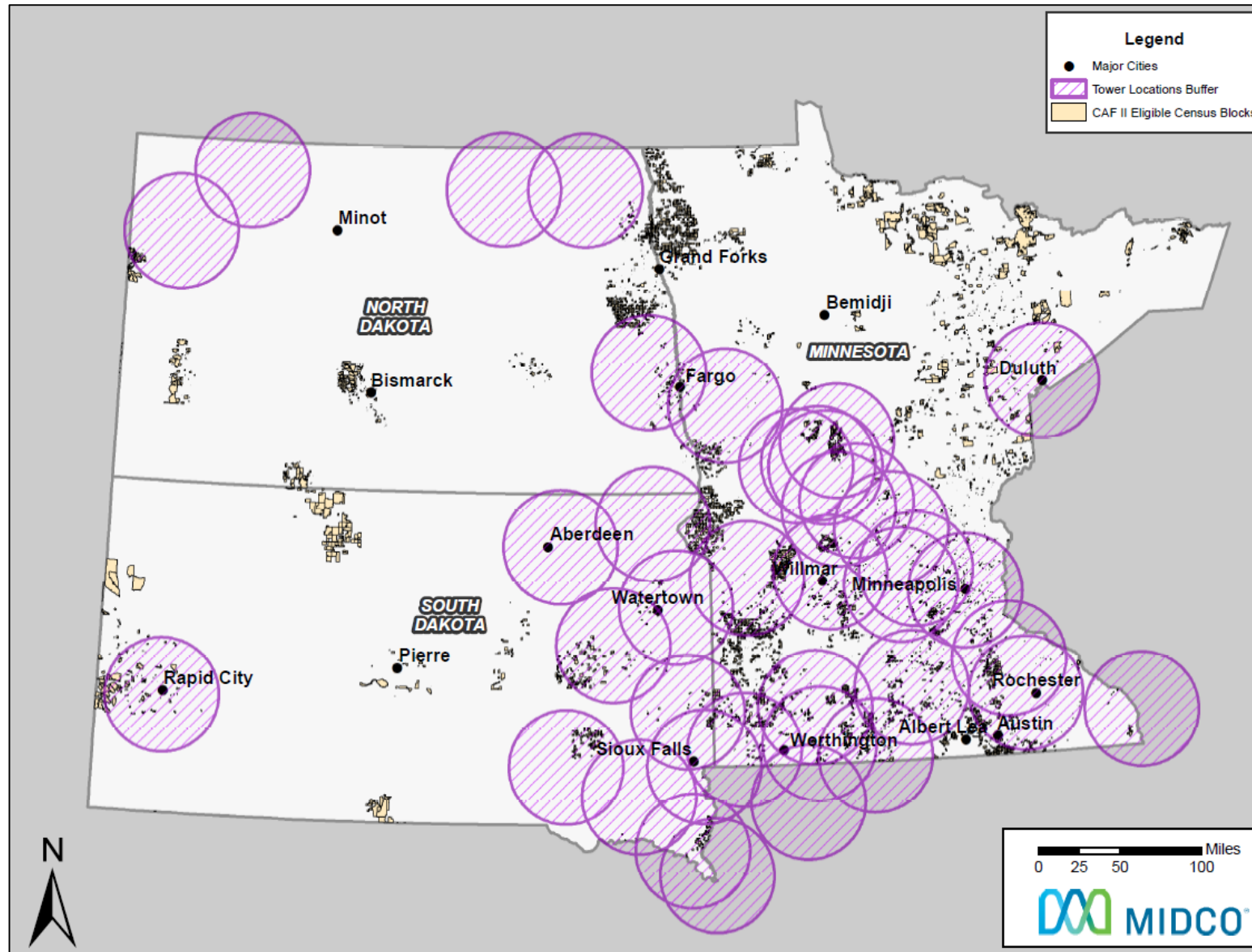


# Commercial EBS Use

- 98% of SD, ND, and MN licenses are essentially commercial
  - 102 licenses
  - 73 have a commercial lease
    - Only 6 of the 29 remaining GSAs have an educational licensee
    - 2 of those 6 are out-of-state, i.e., commercial, licensees
    - Another 2 of the 6 indicate recently expired leases
- 49% of leases associated with Sprint



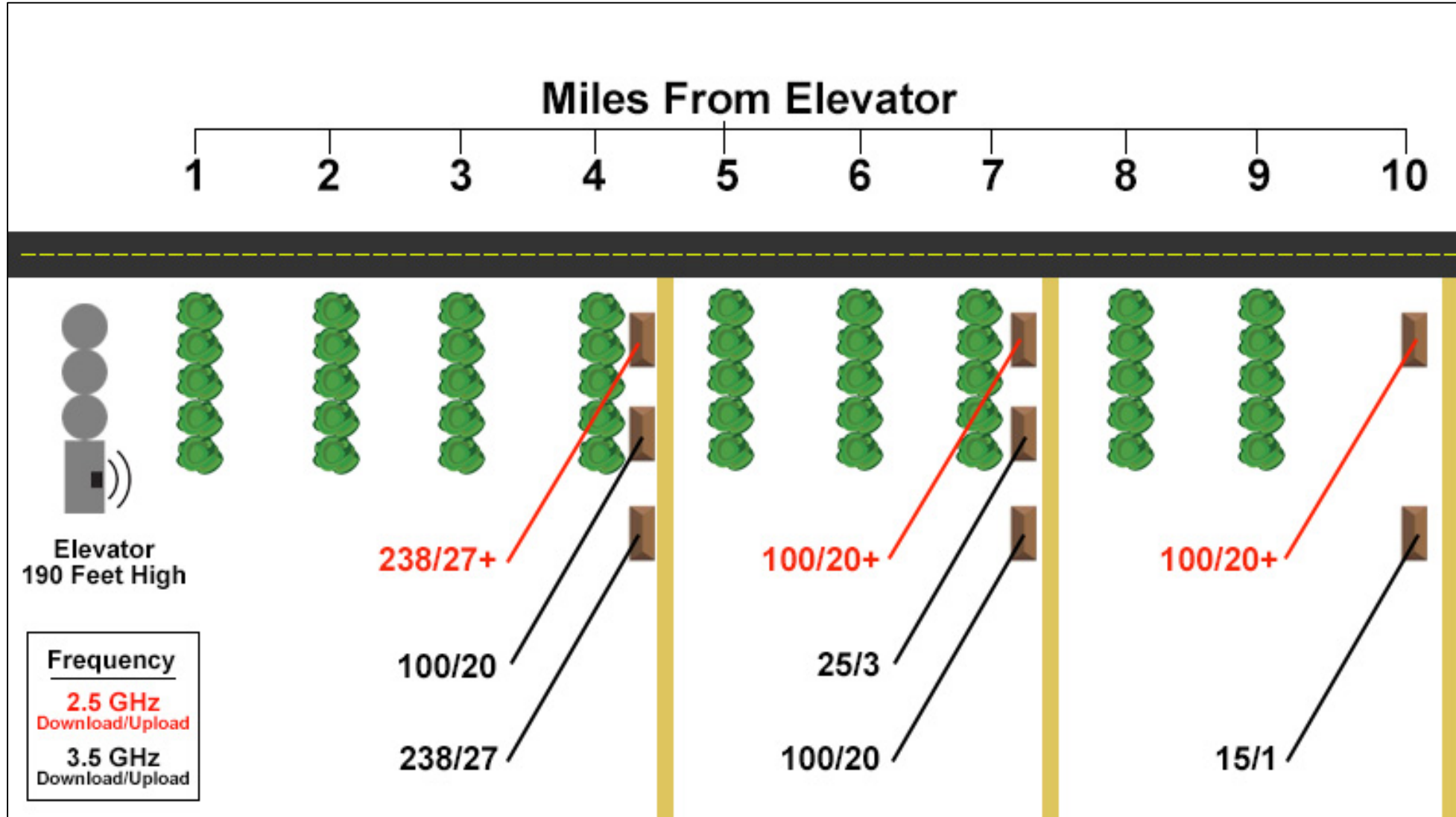
# Even with Commercial Use, Still Unserved Areas



# 2.5 GHz is Valuable in Rural Areas

- About 1 watt of power allowed in 3.5 GHz;  
but 10 watts in 2.5 GHz with carrier aggregation technology
- Good propagation characteristics for forests and shelter belts
- More opportunities to cover larger, less densely populated areas

# 3.5 GHz Band v. 2.5 GHz Band (40 MHz)



# Maximizing the 2.5 GHz Band

- Ideally, 40 MHz of the 2.5 GHz band available to license
  - Consider similar rules for the BRS to increase available spectrum
- At least a 10 MHz channel is best for carrier aggregation
- Contiguous channels easier, but not necessary
- More spectrum equates to more bandwidth for rural Americans, rural businesses, smart agriculture



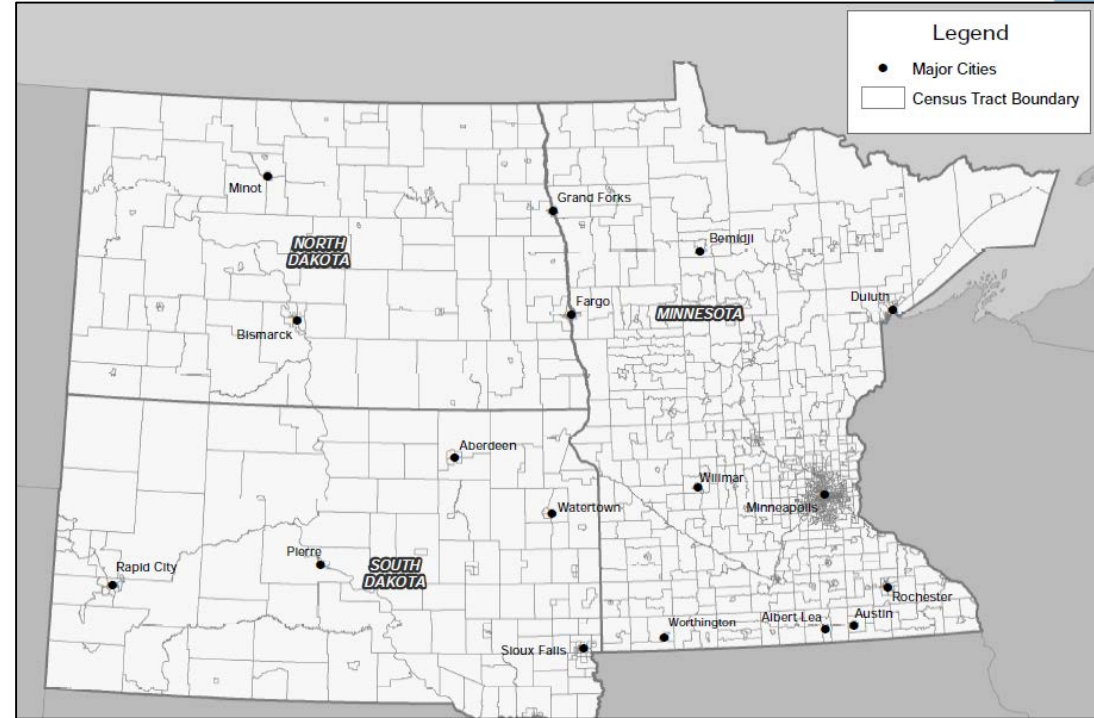
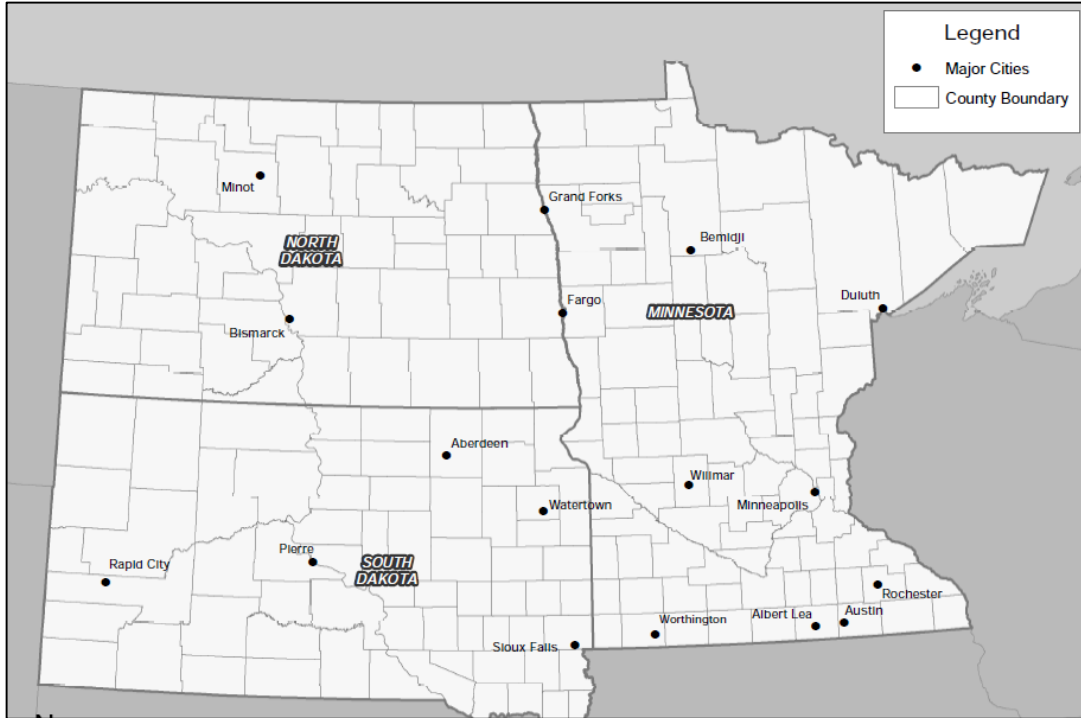
# Connecting Rural Businesses

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# GSAs and New Licenses as County-Sized Licenses

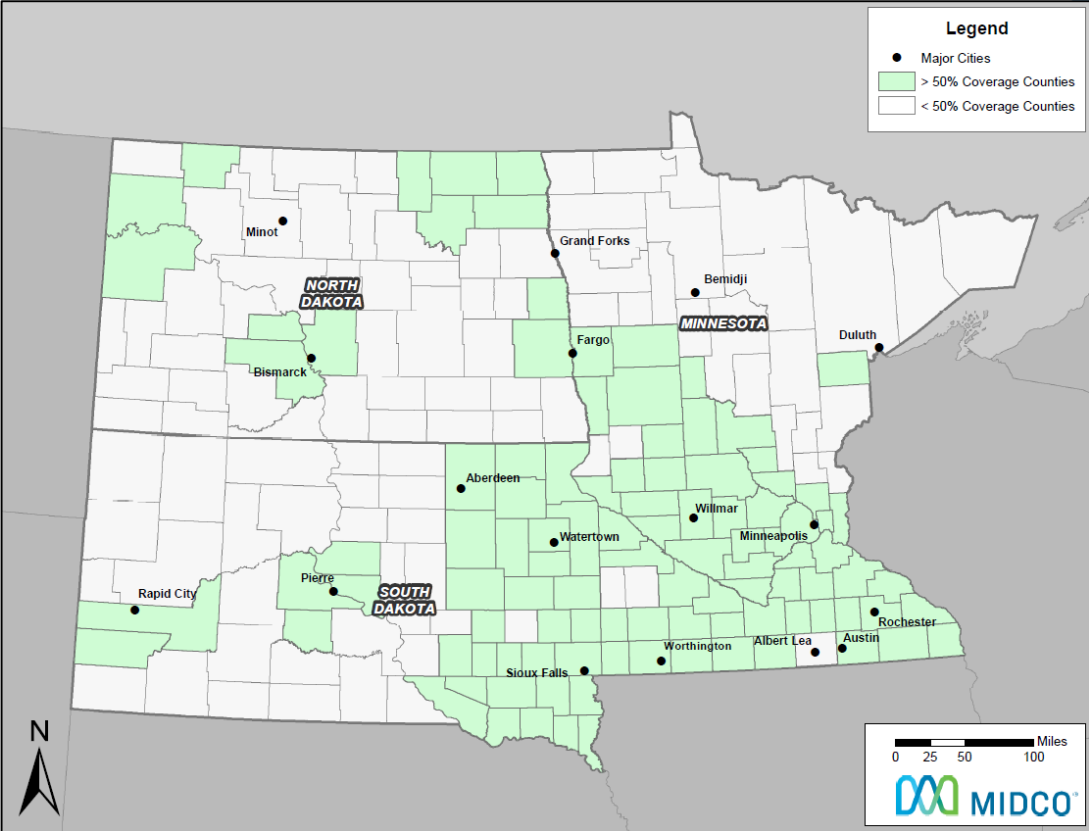
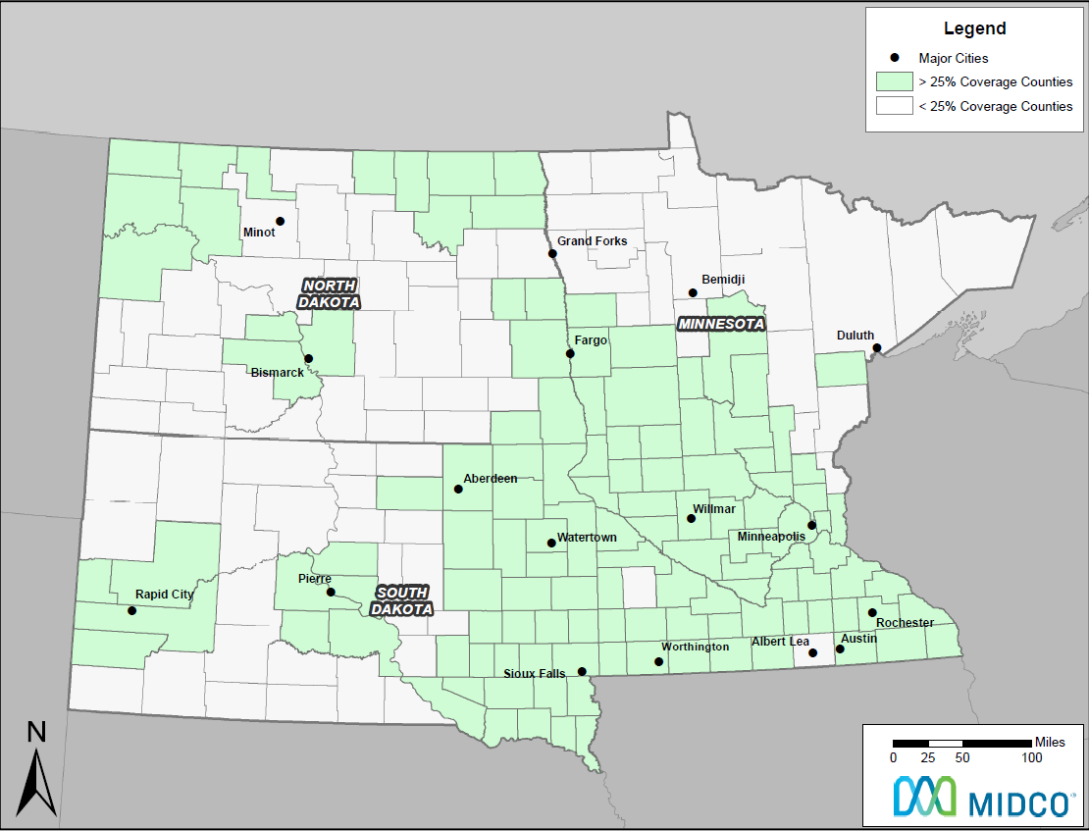




# Rationalization of GSAs

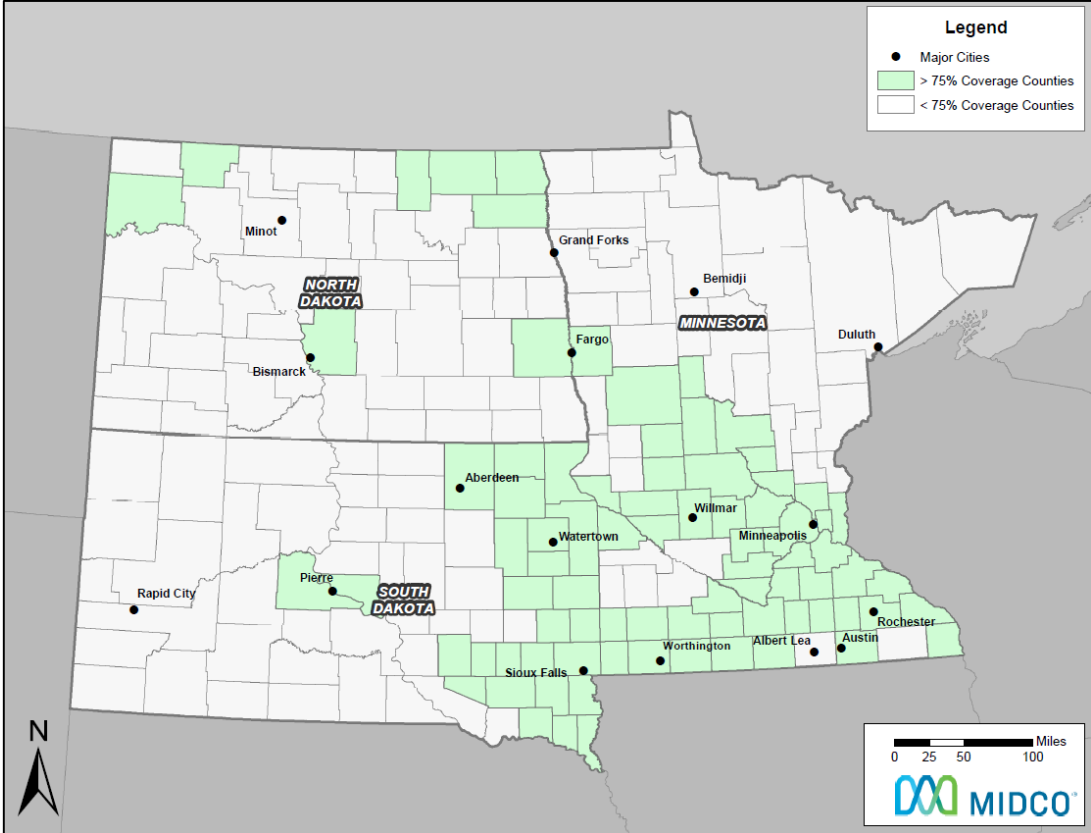
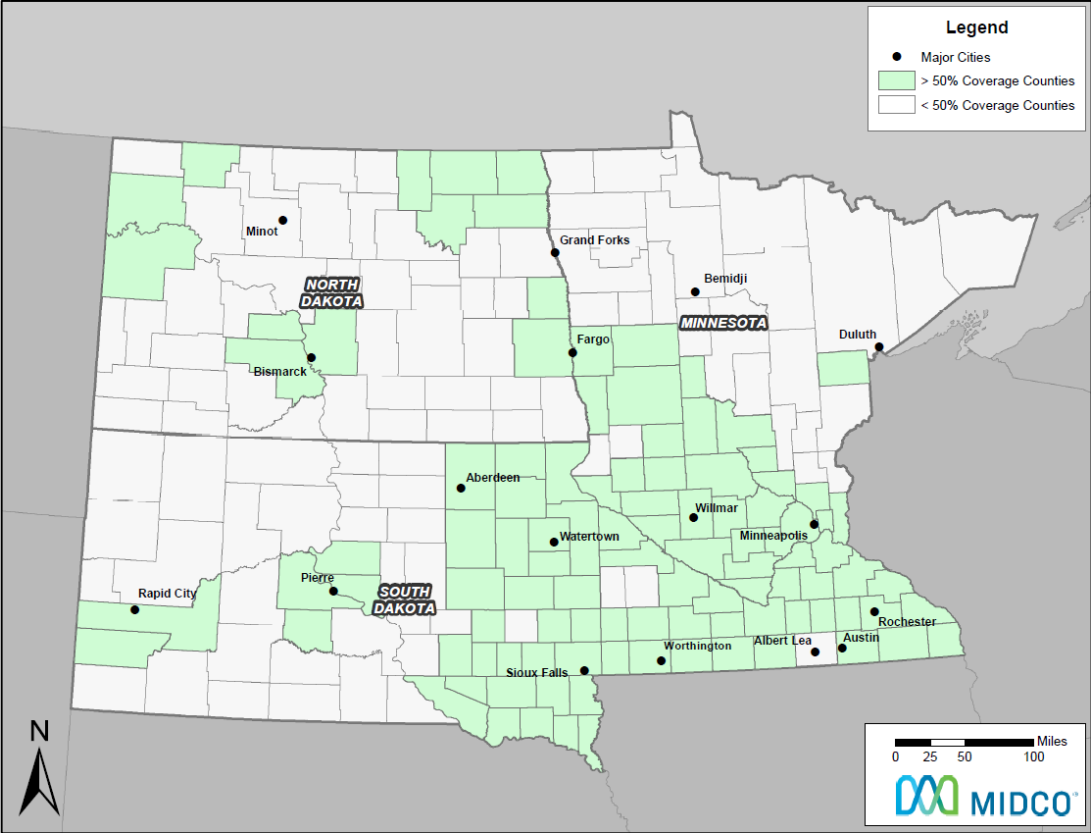
- Given the commercial nature and change of use in spectrum from broadcast to broadband, rationalization is fair
- Rationalize GSAs prior to commercial auction
- Automatic rationalization of GSAs to county-sized licenses if a minimum of 75% of GSA covers the county

# Rationalization on 25% v. 50% of Geography



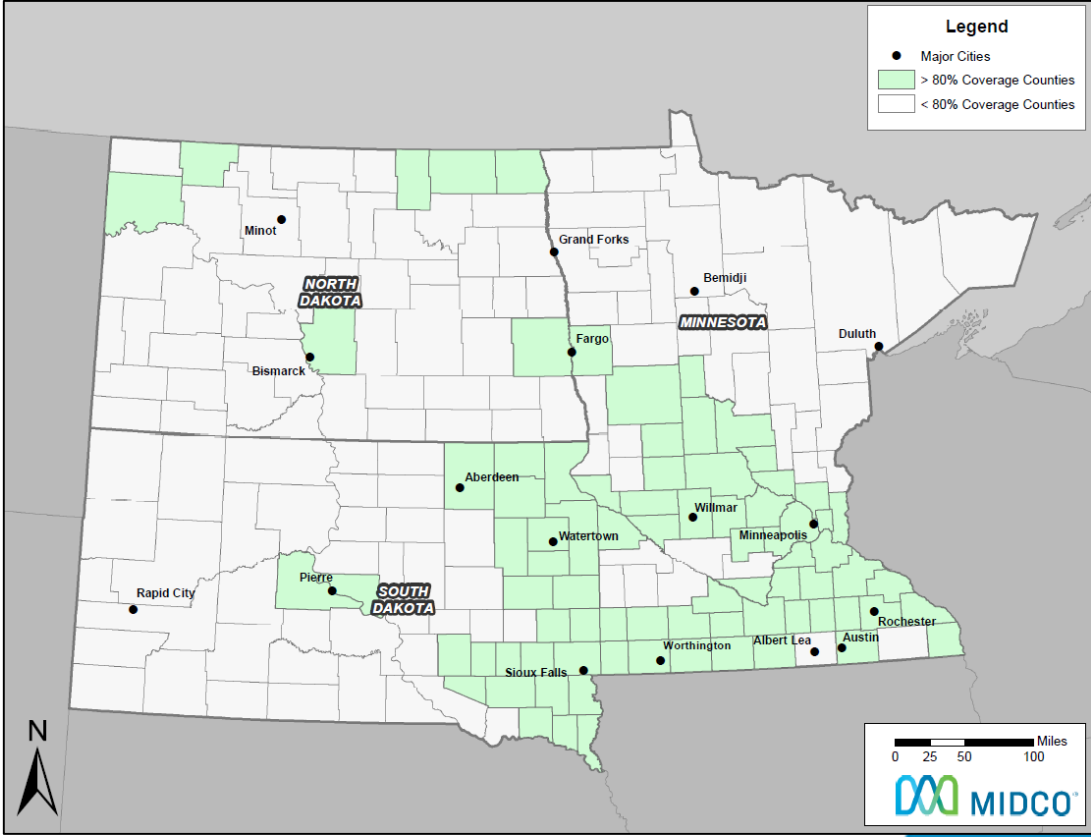
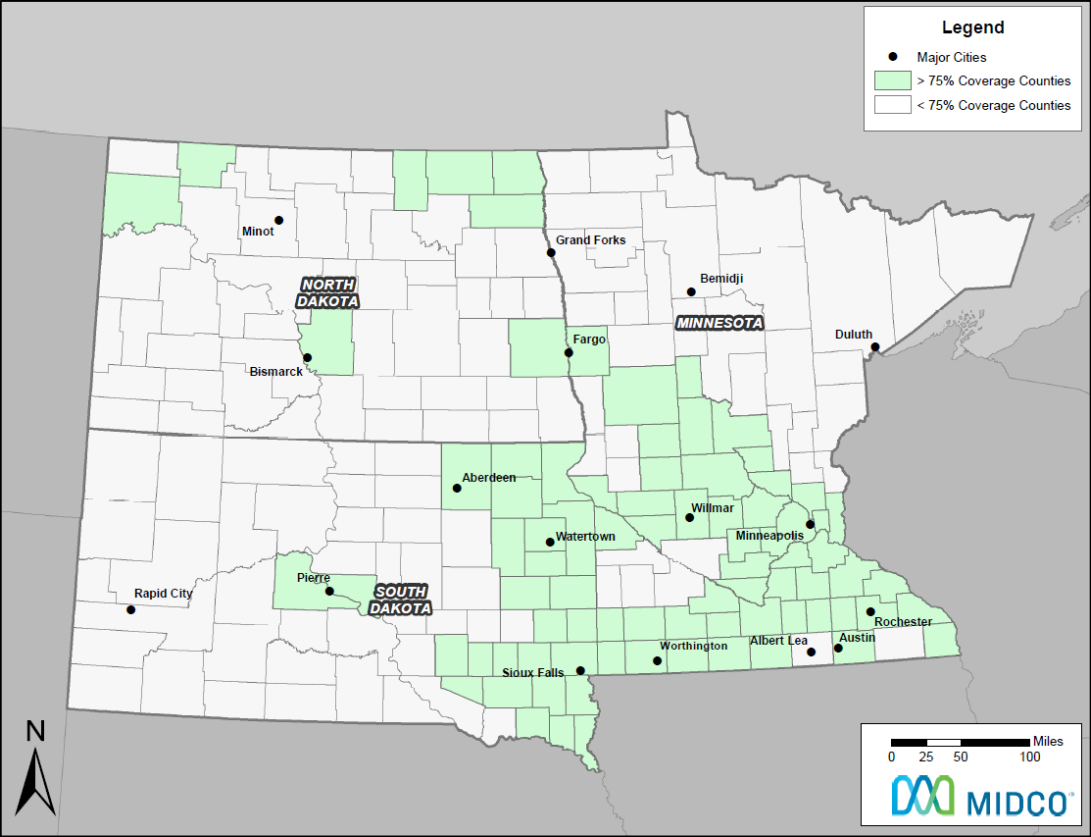
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# Rationalization on 50% v. 75% Geography



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# Rationalization on 75% v. 80% of Geography

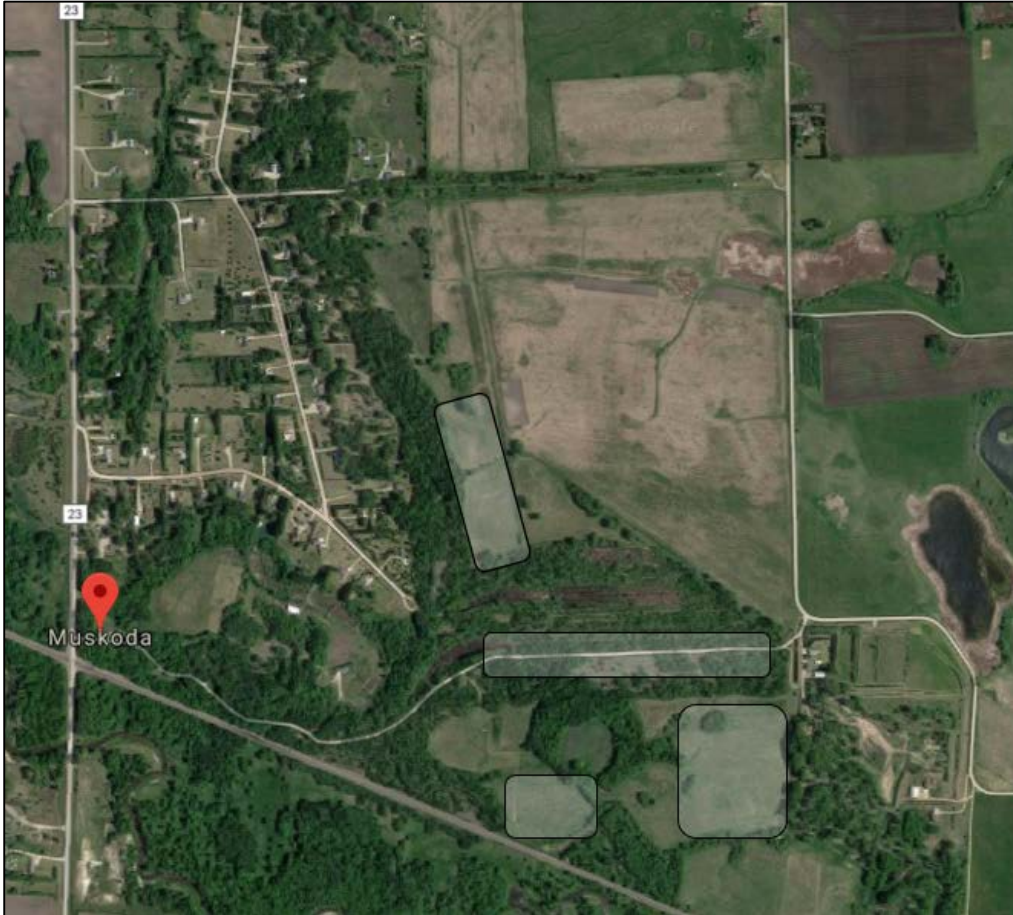


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# Keep Educational Use

- Distance learning is still important, but is now via the internet
- E-rate program provides much-needed broadband access
- Compromise on band's intentions with its commercial reality by requiring participation in the E-rate program if the provider covers the institution requesting service

# 2.5 GHz to Close the Digital Divide



- Rationalize GSA to county if a minimum of 75% of county is covered
- Auction county-sized licenses
- Auction procedures to promote rural broadband development
- Require E-rate program participation



# Contact Information

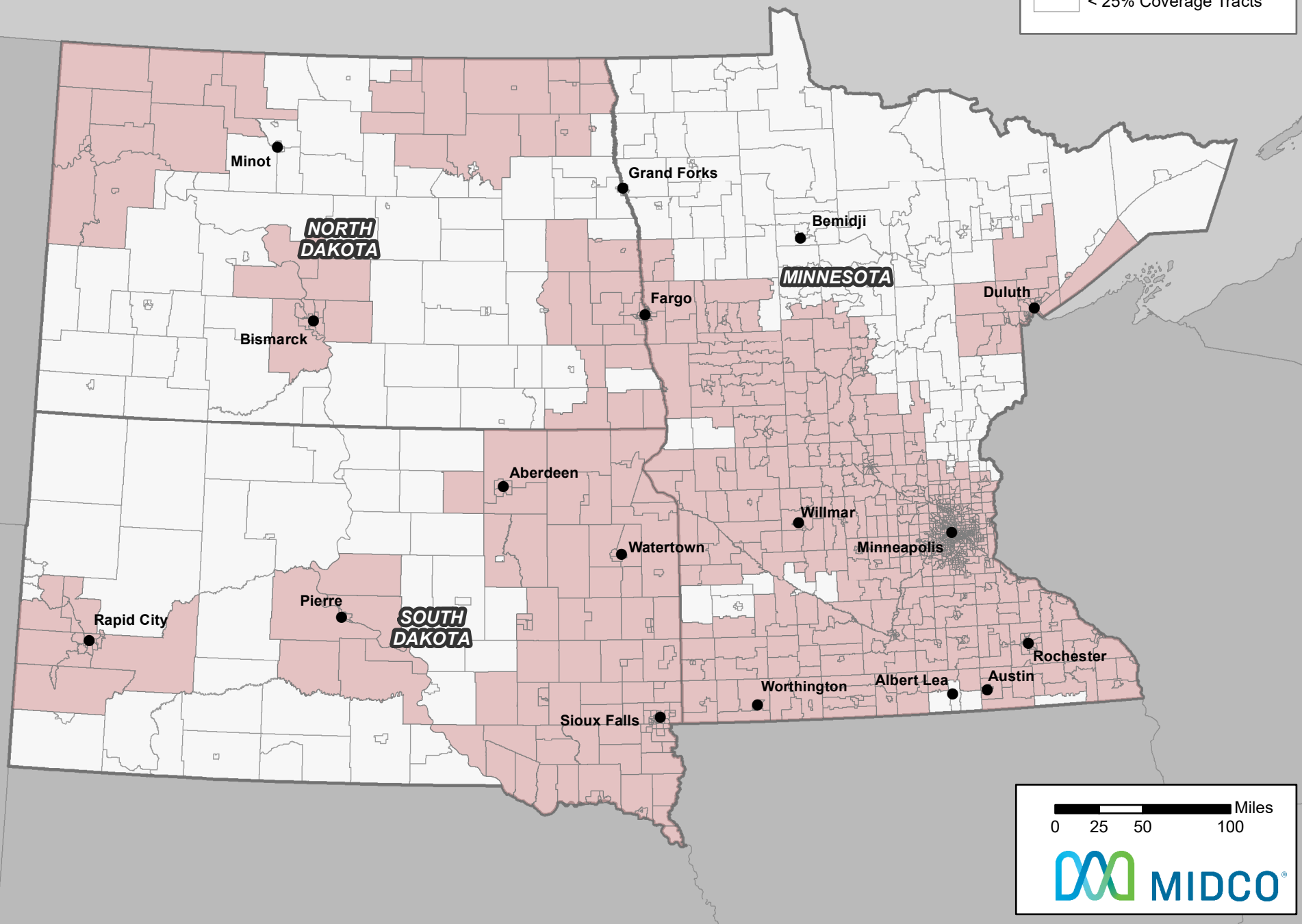
- Scott Anderson  
Chief Legal Officer  
(605) 274-3020  
scott.anderson@midco.com
- Nicole Tupman  
Corporate Counsel  
(605) 275-6610  
nicole.tupman@midco.com



## 25% Rationalization of Census Tract Geography

### Legend

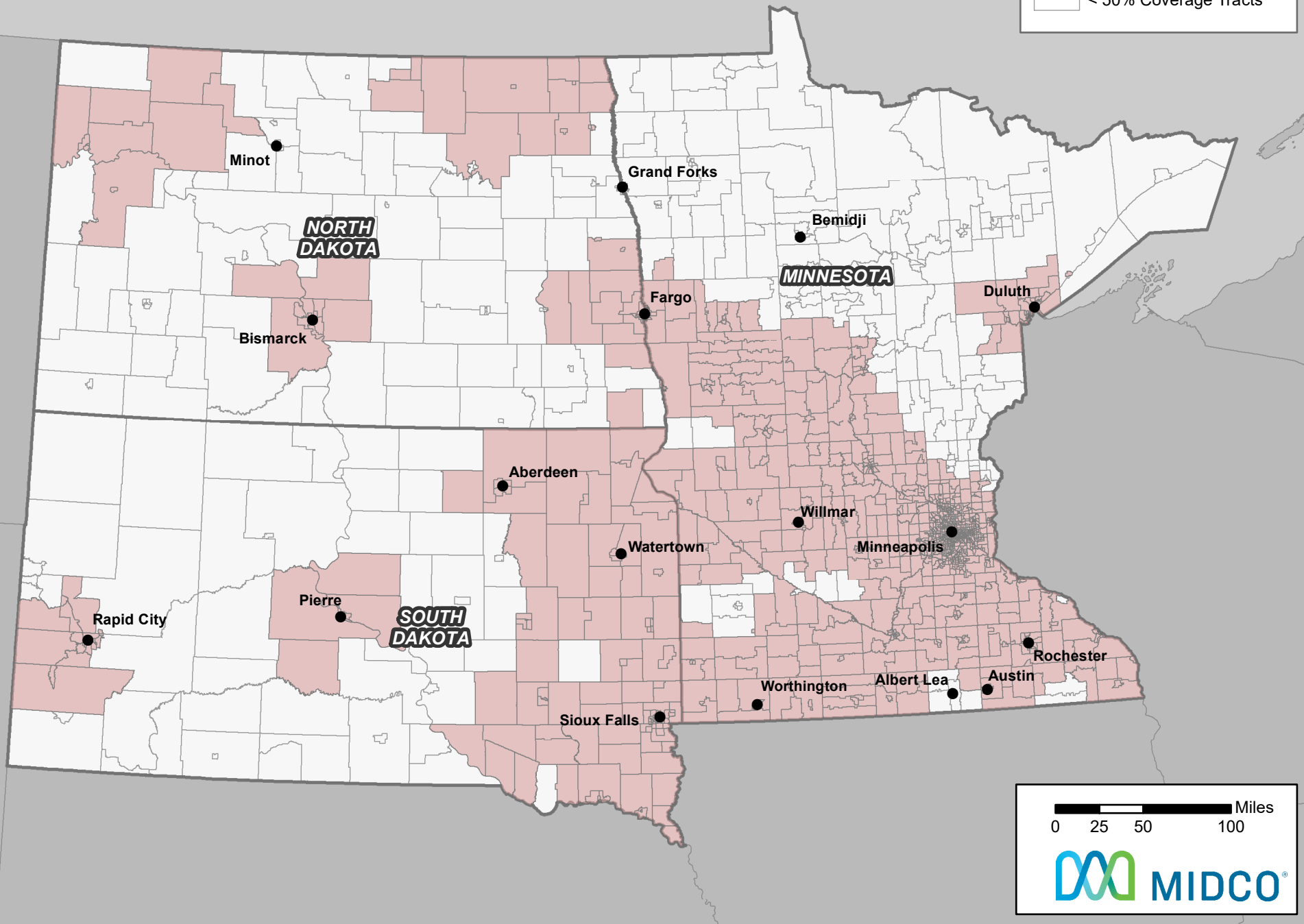
- Major Cities
- > 25% Coverage Tracts
- < 25% Coverage Tracts



# 50% Rationalization of Census Tract Geography

## Legend

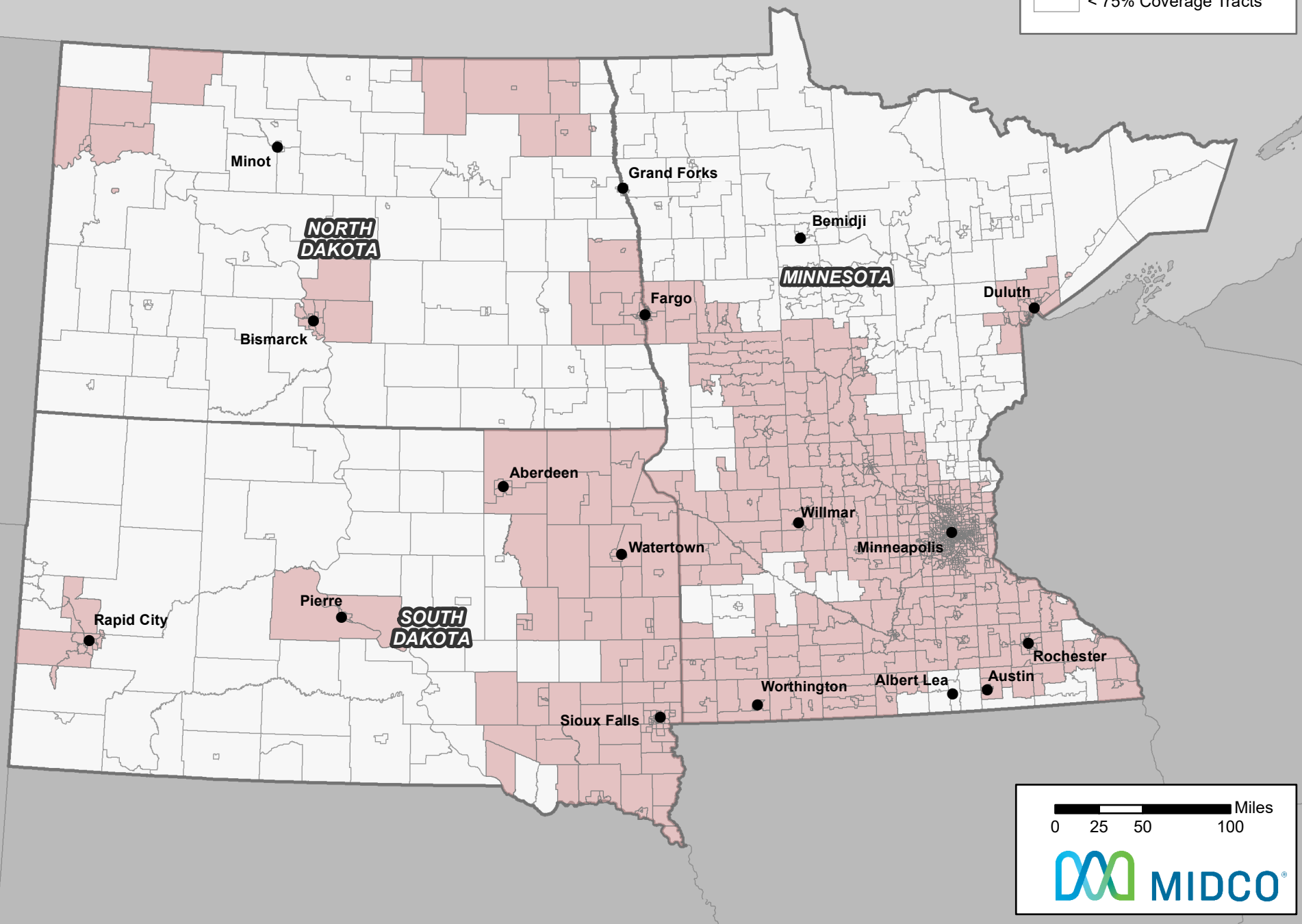
- Major Cities
- > 50% Coverage Tracts
- < 50% Coverage Tracts



# 75% Rationalization of Census Tract Geography

## Legend

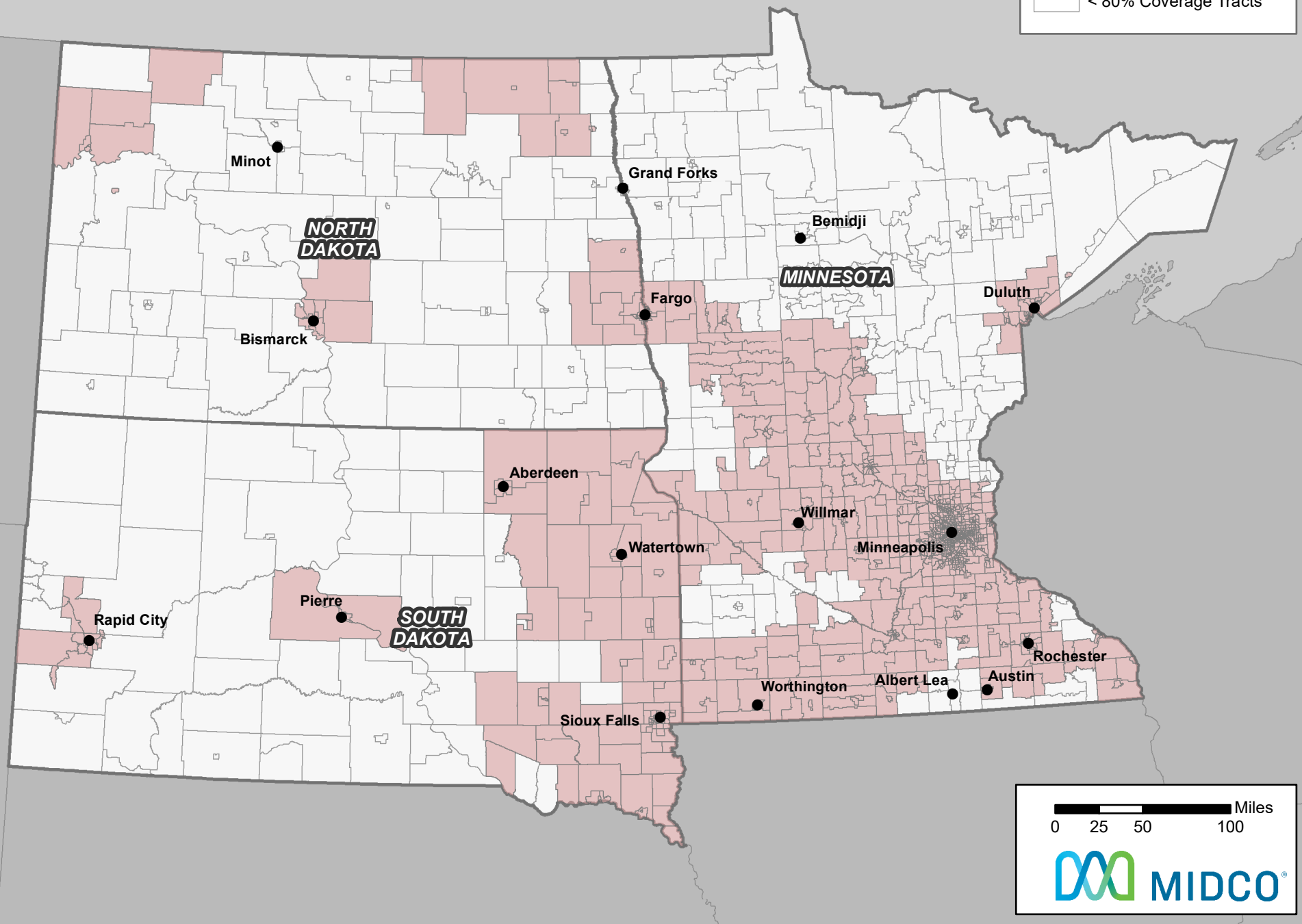
- Major Cities
- > 75% Coverage Tracts
- < 75% Coverage Tracts



## 80% Rationalization of Census Tract Geography

### Legend

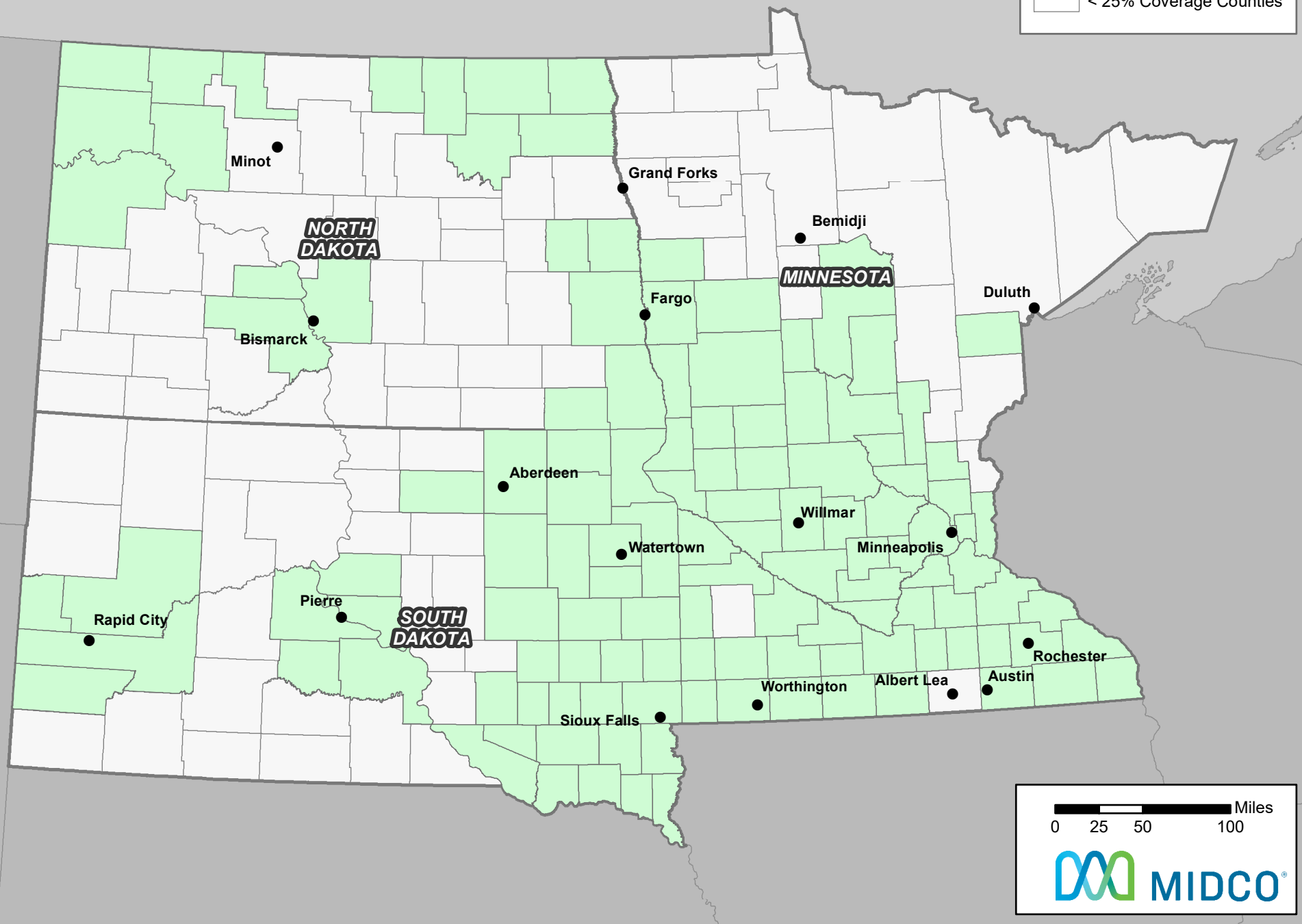
- Major Cities
- > 80% Coverage Tracts
- < 80% Coverage Tracts



## 25% Rationalization of County Geography

### Legend

- Major Cities
- > 25% Coverage Counties
- < 25% Coverage Counties





# 50% Rationalization of County Geography

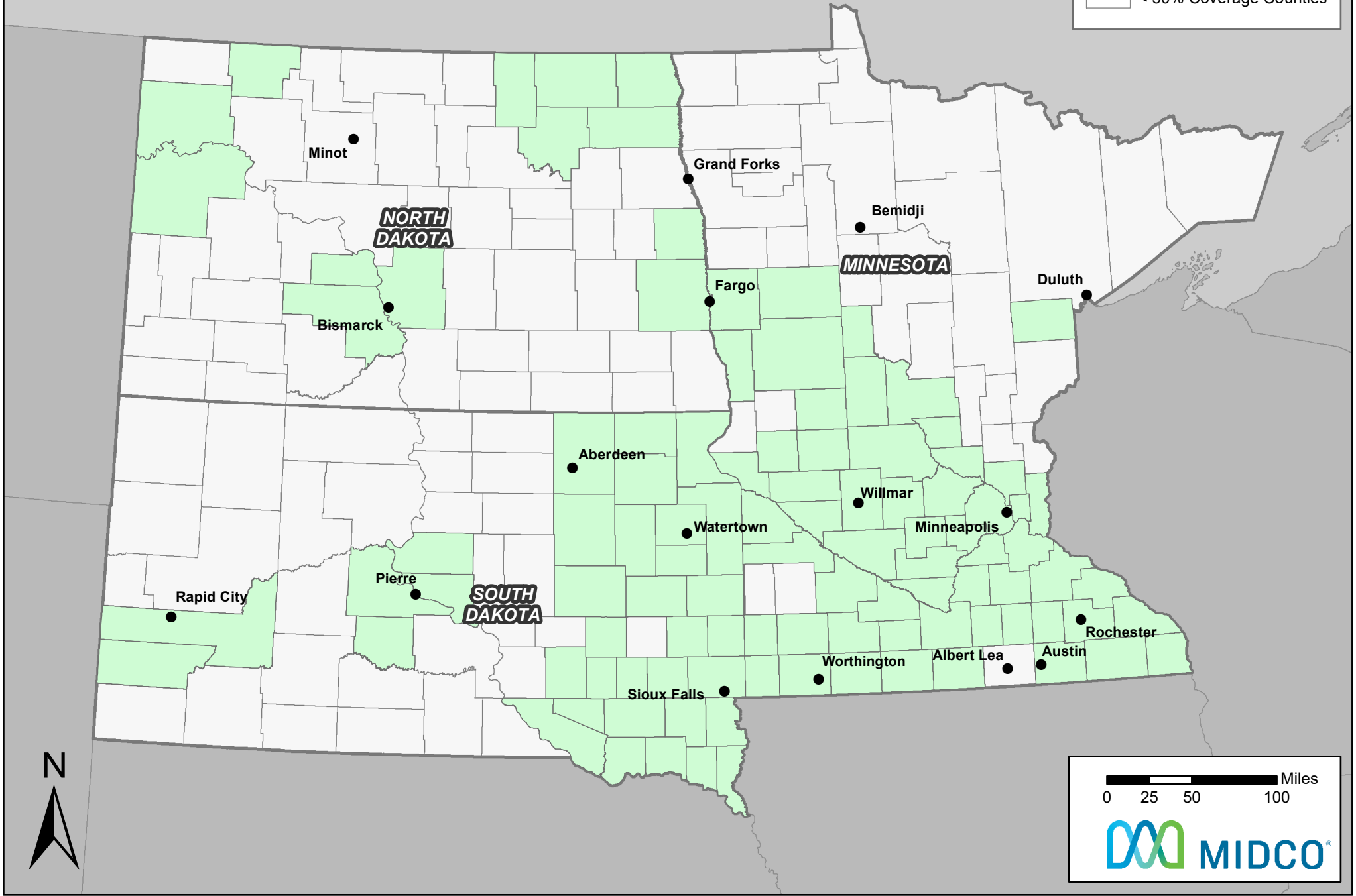
**Legend**

●

Major Cities

> 50% Coverage Counties

< 50% Coverage Counties



0 25 50 100 Miles

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# 75% Rationalization of County Geography

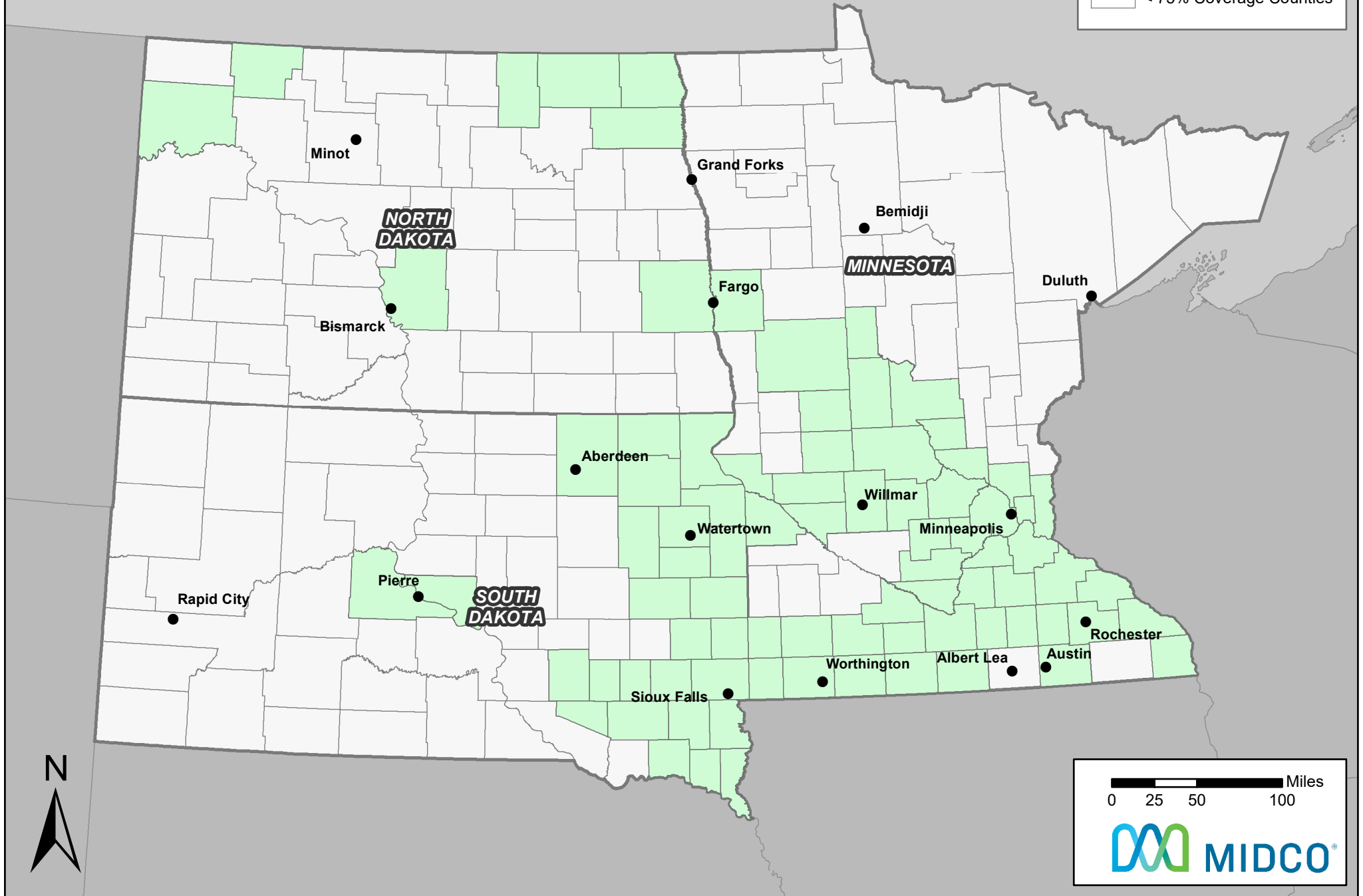
**Legend**

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Major Cities

> 75% Coverage Counties

< 75% Coverage Counties



0 25 50 100 Miles

MIDCO®

# 80% Rationalization of County Geography

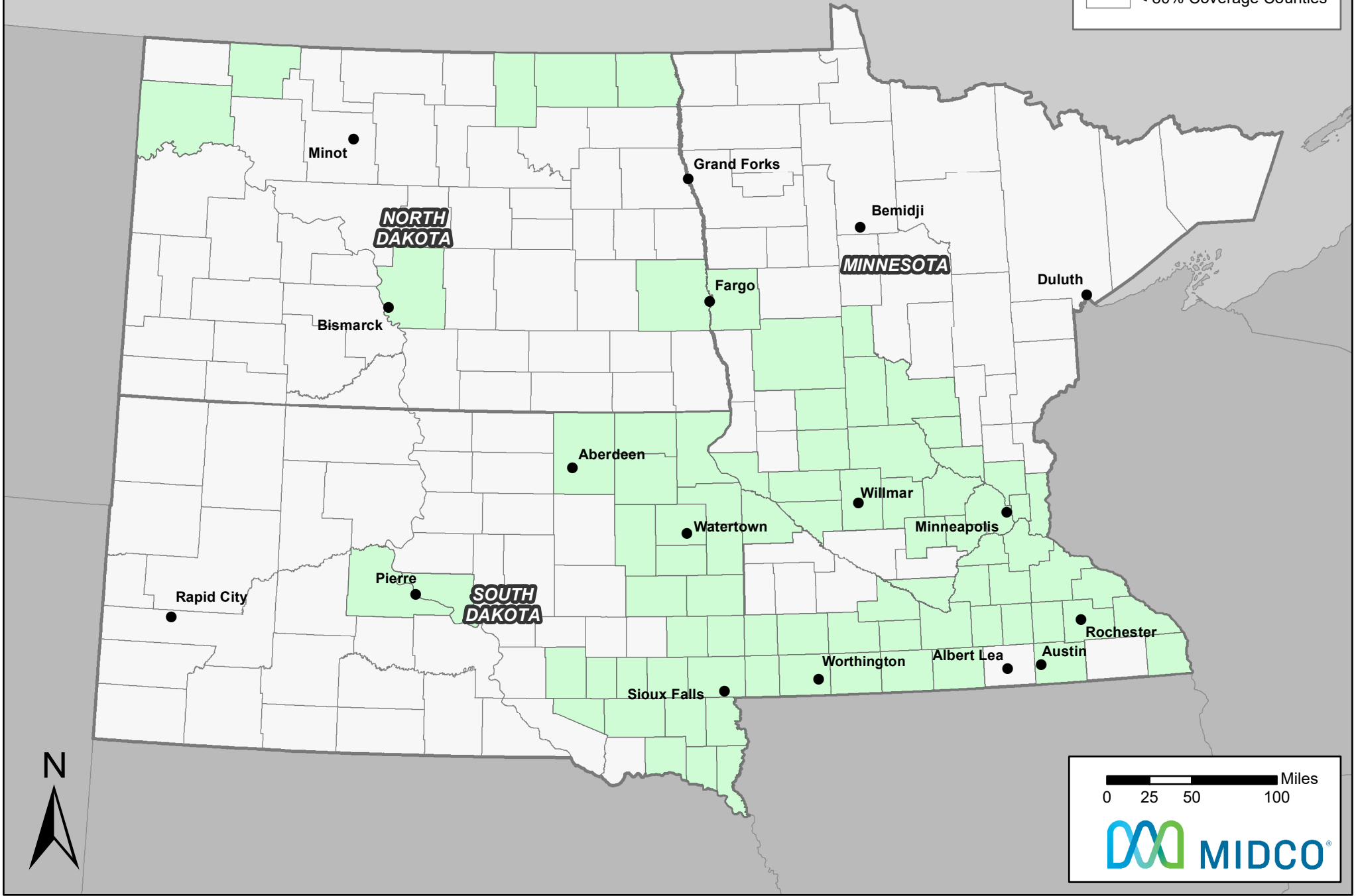
**Legend**

●

Major Cities

> 80% Coverage Counties

< 80% Coverage Counties



0 25 50 100 Miles

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